

# Laparoscopic Treatment of Hydatid Cyst of the Liver: A Case Report

Fatin R. Polat, MD, Sabriye Polat, MD, Enver Sultanoglu, D

## ABSTRACT

Laparoscopic surgery may be used for treating a variety of benign hepatic lesions in select patients. The anatomic location of the lesions are more important than any other peculiarity when laparoscopic management is used. The aim of this report is to discuss the effects and feasibility of laparoscopic treatment of hydatid cyst of liver. The procedure is feasible and safe, offering all the advantages of laparoscopic surgery.

**Key Words:** Laparoscopy, Cyst Hydatid, Liver.

## CASE REPORT

A 41-year-old, male farm worker presented to our hospital with a 3-month history of recurrent right-upper-quadrant pain. Computed tomography demonstrated a 7.41-cm cyst in the right lobe of the liver (**Figure 1**). After the diagnosis, medical treatment with albendazole 400mg per day was initiated 4 weeks before surgery. We suggested a laparoscopic surgical approach for management of the cyst. Preoperative liver function tests were normal. We used two 10-mm and two 5-mm trocars. The cyst was approached laparoscopically by using the same hydatid asepsis techniques as in open surgery. Diagnostic laparoscopy was performed to visualize the cyst. A Veress needle was introduced and hypertonic saline (20% NaCl) was injected to surround the cyst. Afterwards, we punctured the cyst, and hypertonic saline (20% NaCl) was injected into it. The saline solution was allowed to remain for 5 minutes and changed 4 to 5 times. A portion of the cyst wall was excised for pathological examination. The germinative layer and hydatid daughters were removed with care and placed in extraction bags (**Figure 2**). The pericystic cavity was obliterated with omentum. The patient did well postoperatively and was discharged on the third postoperative day.

## CONCLUSION

Hydatid disease is characterized by a worldwide distribution and frequent hepatic involvement.<sup>1</sup> Hydatid cyst is caused by *Echinococcus granulosus*. Treatment is surgical, because it does not respond to drug administration.<sup>1</sup>

Therapy consists of inactivation of the cyst with scolicide (hypertonic saline), removal of the cyst contents without contaminating the patient, followed by appropriate management of any remaining cavity.<sup>1,2</sup> The cyst is approached laparoscopically by using the same hydatid aseptic techniques as in open surgery.<sup>3</sup>

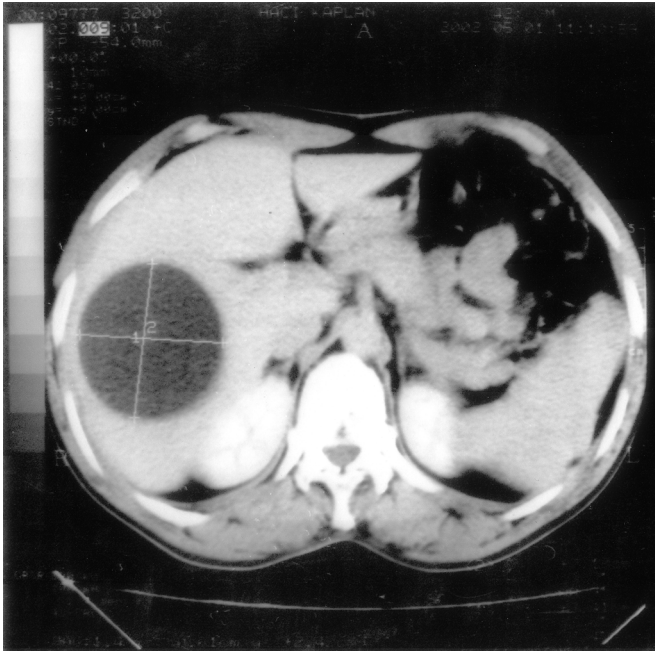
The procedure is contraindicated in patients with secondarily infected cysts, or suspected biliary communication (bile-stained aspirate), owing to the increased risk of complications.<sup>2</sup> In these cases, open surgery is preferred.

The laparoscopic technique is safe and simple and has the

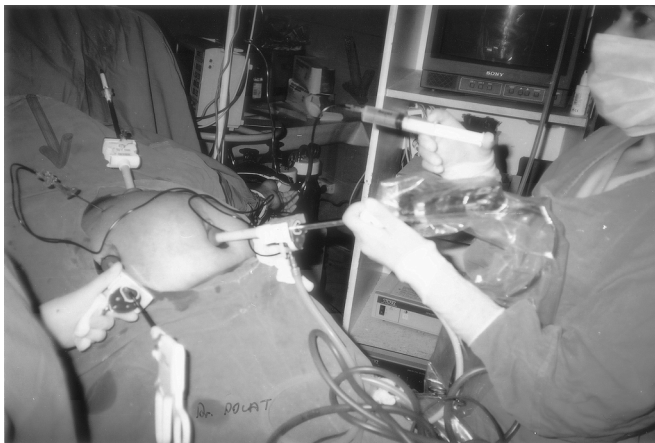
Department of Surgery, State Hospital, Van, Turkey (Drs FR Polat, Sultanoglu), Department of Pathology, 100 Years Faculty Hospital, Van, Turkey (Dr S Polat).

Address reprint requests to: Fatin R. Polat, MD, Arasturma hastanesi arkasi, Kardelen sitesi, C. Blok. No:5 Van, Turkey. Telephone: 905323961224, Fax: 00904322169599, E-mail: polat22@hotmail.com

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**Figure 1.** Abdominal computed tomography scan showing a 7.41-cm cyst in the right liver.



**Figure 2.** Hypertonic saline was instilled into the cavity.

advantages of other abdominal laparoscopic operations. It also fulfills the prerequisite of open surgery of hydatid cyst of the liver, namely, the prevention of intraperitoneal spillage of cyst contents.<sup>4</sup>

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